

Quantum interference effects in Mössbauer transitions

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Abstract

Quantum interference effects in Mössbauer transitions in the mode of coherent dynamics of nuclear spins in magnetic materials, which is initiated by an external rf field, were considered. The valve effect in the resonance fluorescence spectra of Mössbauer radiation under these conditions was revealed. A calculation was performed by the density-matrix method developed previously for similar problems in optics and modified taking into account the specific features of the problems of gamma optics. © 2006 by Allerton Press, Inc.
